

Range

The Range of a function is the same thing as:

1. Dependent Variable
2. y-values
3. Output values

There are two types of range:

1. Theoretical Range:
2. Practical Range:

Theoretical Range:

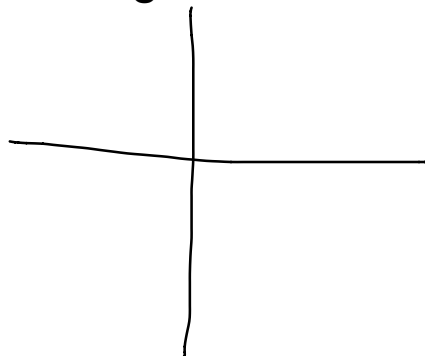
Find ALL possible dependent (y-values) that work in the equation. Use a graph to help you to state the range of the function.

Practical Range:

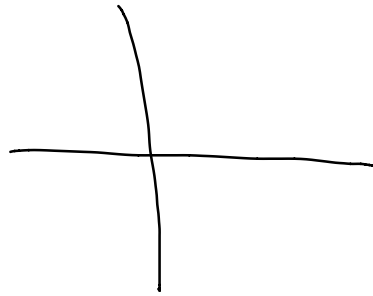
Find ALL the dependent values (y-values) that ONLY make sense in the WORD PROBLEM. If the function is from a height vs. time word problem, then you can not have negative height(y-value)

Example: State the range for the following functions:

$$\textcircled{1} f(x) = |x + 5|$$



② $f(x) = 3(4)^x$



③ In a height as a function of time word problem, the equation would be $h(t) = -16t^2 + 40t + 2$.

